

Implementation and Demonstration Report in Integrated Pest Management

Development and Demonstration of an IPM Protocol for Fresh Market Tomatoes December, 1999

Principal Investigators: Abby Seaman, WNY Vegetable IPM Educator; Helene Dillard, Ann Cobb, and Katie McCormick, Dept. of Plant Pathology, NYSAES

Cooperators: Carol MacNeil and John Gibbons, Ontario, Wayne, Yates and Steuben Muck Vegetable Program

Abstract

We looked at different approaches to managing bacterial canker in tomatoes, including seed treatments and their impact on seed germination, soil and foliar treatments in the greenhouse, and soil and foliar treatments in the field. We also provided cooperating growers with transplants from hot water and acid treated seed grown in an uncontaminated greenhouse to demonstrate the impact of seed treatments and greenhouse sanitation on disease development in the field. The effect of seed treatments ranged from a 7.8% decrease to a 2.7% increase in germination in the seed lots we treated. Bacterial canker did not appear in the research farm trial plots so we were not able to evaluate the efficacy of the seed, soil, and foliar treatments. In cooperating grower's fields the impact of seed treatment and greenhouse sanitation was not readily apparent. At one farm, bacterial canker first appeared outside the demonstration area and appeared subsequently at nearly the same time on treated and untreated transplants in the demonstration area, so the impact of seed treatment was not clear. At the other farm, only a small amount of bacterial canker was found while scouting the untreated plants, and did not show up in our harvest evaluation, so it was again not possible to evaluate the effect of seed treatment and greenhouse sanitation. Growers with recurring problems with bacterial canker need to use an integrated management approach that includes field rotation, greenhouse sanitation and treatments, and field sanitation and treatments. Seed treatment may be worthwhile for growers who have not had prior problems with canker.

For a printed copy of the entire report, please contact the NYS IPM office at:

IPM House
630 W. North St.
New York State Agricultural Experiment Station
Geneva NY 14456
315-878-2353